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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,824	06/29/2000	Guo-Qiang Q. Wang	91436-251	7432

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EXAMINER

PHAN, HANH

ART UNIT	PAPER NUMBER
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2633

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/605,824

Applicant(s)

WANG ET AL.

Examiner

Hanh Phan

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 12/22/2004.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 7, 8 and 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Fatehi et al (US Patent 6,535,313).

Regarding claims 1, 7 and 8, referring to Figures 3-5, Fatehi discloses a method of operating a data communication apparatus comprising:

at each of a plurality of service specific transceivers (i.e., data source/sinks 102-1 to 102-M, data buffers, 402-1 to 402-M, TDM multiplexer 450, Figs. 3 and 4, col. 5, lines 20-67 and col. 6, lines 1-67):

receiving a plurality of input signals from a given plurality of data communications devices (i.e., data sources 102-1 to 102-M) operating with a given data communication protocol;

aggregating (i.e., data buffers 402-1 to 402-M, TDM multiplexer 450, Fig.

Art Unit: 2633

4) each of the received plurality of input signals to result in a given service specific electrical signal;

transmitting the given service specific electrical signal to a wavelength access controller (i.e., E/O converter 460, optical switch/wavelength control 408, Fig. 4);

at the wavelength access controller (i.e., E/O converter 460, demand estimator/control 407, optical switch/wavelength control 408, optical wavelength multiplexer units 410, system control 420, and network control and management 430, Fig. 4):

receiving a plurality of service specific electrical signals from a plurality of service specific transceivers, at least two of the service specific transceivers operating with different data communication protocols (Fig. 4);

converting (i.e., E/O converter 460, Fig. 4) the plurality of service specific electrical signals to a corresponding plurality of service specific optical signals;

wavelength division multiplexing (i.e., optical wavelength multiplexer units 410, Fig. 4) the plurality of service specific optical signals to result in a wavelength division multiplexed signal; and

transmitting the wavelength division multiplexed signal over an optical conductor (i.e., optical link OL 104, Fig. 4) to an element of an optical transport network (i.e., optical transport network element 103, Fig. 3) (see col. 5, lines 20-67, col. 6, lines 1-67, col. 7, lines 1-67 and col. 8, lines 1-48).

Regarding claim 2, Fatehi further teaches the wavelength access controller (i.e., E/O converter 460, demand estimator/control 407, system control 420, optical

switch/wavelength control 408, optical wavelength multiplexer units 410, Fig. 4)
classifying each of the plurality of service specific electrical signals (col. 5, lines 20-67
and col. 6, lines 1-67).

Regarding claims 10-12, referring to Figures 3 and 6, Fatehi discloses a method
of operating a data communication apparatus comprising:

at a wavelength access controller (i.e., O/E converter 620, optical
switch/wavelength control 409, optical wavelength demultiplexer units 601, Fig. 6):

receiving a wavelength division multiplexed signal over an optical
conductor (i.e., optical link OL, Fig. 6) to an element of an optical transport network (i.e.,
optical transport network element 103, Fig. 3) (see col. 5, lines 20-67, col. 6, lines 1-67,
col. 7, lines 40-67 and col. 8, lines 1-48).

wavelength division de-multiplexing (i.e., optical wavelength de-multiplexer
units 601, Fig. 6) the wavelength division multiplexed signal to result in a plurality of
service specific optical signals; and

converting (i.e., O/E converter 620, Fig. 6) the plurality of service specific
optical signals to a corresponding plurality of service specific electrical signals;

determining (i.e., wavelength control 609, system control 640, multiplexer
TDM 605 and data buffers 606-1 to 606-M, Fig. 6) which of a plurality of service specific
transceivers correspond to each of the plurality of service specific electrical signals;

transmitting (i.e., wavelength control 609, system control 609, multiplexer
TDM 605 and data buffers 606-1 to 606-M, Fig. 6) each of the plurality of service
specific electrical signals to a determined corresponding service specific transceiver.

at each of a plurality of service specific transceivers (i.e., data source/sinks 102-1 to 102-M, data buffers, 402-1 to 402-M, TDM multiplexer 450, Figs. 3 and 4, col. 5, lines 20-67 and col. 6, lines 1-67):

receiving a plurality of input signals from a given plurality of data communications devices (i.e., data sources 102-1 to 102-M) operating with a given data communication protocol;

aggregating (i.e., data buffers 402-1 to 402-M, TDM multiplexer 450, Fig. 4) each of the received plurality of input signals to result in a given service specific electrical signal;

transmitting the given service specific electrical signal to a wavelength access controller (i.e., E/O converter 460, optical switch/wavelength control 408, Fig. 4);

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3, 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Fatehi et al (US Patent 6,535,313).

Regarding claims 3 and 4, it would have been obvious to obtain maintaining at the wavelength access controller a database of information relating to resources in the

Art Unit: 2633

optical transport network in order to provide the wavelength channels dynamically between the optical transport network elements and support transmission from a variety of service network nodes using a variety of different data communication protocols.

Regarding claim 6, it would have been obvious to obtain header information in each of the plurality of service specific electrical signal in order to allow monitoring and error correction of the signal .

Allowable Subject Matter

6. Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claim 9 is allowed.

Response to Arguments

8. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (703)306-5840.

Art Unit: 2633

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (703)305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

A handwritten signature in cursive script, appearing to read 'Hanh Phan', is written over a horizontal line.

Hanh Phan

Patent Examiner

03/19/2004